Pricing, Not Policing, Will Limit Water Use in Greensboro

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Article:

Years ago the News & Record ran a brief wire story about "the thirstiest town in Kansas." The small town of Rolla used over four times more water per person than the state average. The story didn't explain the cause of Rolla's "thirst," but it noted that like many small towns, Rolla had no water meters. Residents paid only a monthly fee.

The lesson, of course, is that water consumption in Rolla was so high because water bills had nothing to do with actual use. Each additional gallon of water was essentially free, hence there was no economic incentive to conserve. And as a result no one conserved water. One extreme case was a resident who used an amazing 100,000 gallons per month to keep an outside spigot from freezing! (The average residential use in Greensboro is about 6,000 gallons per month.)

Time and again, we see how effective prices are in guiding behavior. For example, people claim to prefer American-made goods, but they tend to purchase low-priced products regardless of the country of origin. People say it's important to conserve oil, but the only reason that fuel-efficient cars are in demand now is the high price of gasoline. It's no different with water. After meters were introduced in Rolla in the 1990s, water consumption was cut in half. In Greensboro, rising water rates in recent years have led average consumption to fall.

Even so, for the second time in five years, North Carolina finds itself in a serious drought. Since May 1, Greensboro has had less rain than in any previous year on record. Unfortunately, city officials are forced to respond to this challenge with the same old policy tools, none of which involves the price of water. Consequently, none is likely to work well.

By now we're familiar with how Greensboro responds to a drought. First come voluntary restrictions, in which we're asked, pretty please, to stop using so much water. Appeals are made to our community spirit, and sadly that does little or no good. Last month, voluntary restrictions lasted less than two weeks before mandatory restrictions were put in place.

How is the program enforced? A News & Record article described the nocturnal patrols of a city employee on the look-out for illicit water users. City officials also don't mind if residents turn each other in. But are overnight patrols and tattling neighbors really the way to monitor something as fundamental as the provision of water?

Instead, why don't we harness the power of prices? The key is to maintain a low price for the first few thousand gallons used, in order not to affect essential activities like drinking and bathing. But for higher levels of water use, which tend to be for discretionary activities like lawn watering and car washing, the price should rise *sharply* in order to provide the necessary incentive not to waste or overuse water.

In Greensboro, usage is measured by the "unit," which is equivalent to 100 cubic feet of water, or 748 gallons. For residential users, Greensboro has a block rate structure in which the price rises with usage. However, because the rate rises so little as usage rises, little help is provided during a drought.

For the first nine units used per quarter, the residential rate is $1.47 per unit. The rate is $2.05 per unit for units 10 through 30, and $2.65 per unit for units 31 through 60. The rate for any units above 60 per quarter is $3.40. So a six-fold increase in consumption leads to only slightly more than a doubling in price. It might as well remain at $1.47.

Other cities do this right. For example, the Irvine Ranch Water District in southern California is known for its success using prices to achieve conservation. The IRWD charges less than Greensboro for low-volume users, but when usage rises to only double the base level, the rate shoots up by a factor of eight, to $7.84 per unit. Imagine if Greensboro charged 8 times its base rate of $1.47 for usage above 20 units per month. That'd be nearly $12 per unit, and *then* we'd see some serious conservation!

I'm not suggesting that either $7.84 or $12 is the right price for Greensboro. Every city needs to determine the water rates that makes sense for its circumstances. However, it's clear that Greensboro's circumstances require something different than what we now have.

Other cities in North Carolina are seeing the light on this. Chapel Hill and Carrboro charge nearly $10 per unit for usage that corresponds to Greensboro's top rate. These rates have been seasonal, but they'll be effective year-round starting October 1. The mayor of Raleigh, faced with soaring water usage in spite of mandatory restrictions, now favors charging higher prices for high levels of usage, something he opposed as recently as last year.

In Greensboro, a steeply rising block rate (accompanied by a public-information campaign) could be put in place only during the summer, or only when drought conditions are present. However, raising rates for high levels of usage year-round would lead homeowners to boost water efficiency (i.e. repair leaking toilets, etc.) and make the next drought easier to cope with. The challenge won't disappear when Randleman Lake finally starts supplying water.

There's no reason why households should be the only ones conserving water. Businesses, which in recent months have accounted for 46 percent of Greensboro's water consumption, pay a flat $2.05 per unit. Even though block rates make little sense for businesses (a factory has very different water needs than a law firm), there's no reason the flat business rate shouldn't rise during a drought.

A price-based system for water conservation could achieve what voluntary and mandatory restrictions cannot. Of course price increases are rarely popular. But the alternative is a system that doesn't work well and asks neighbors to snitch on each other. My vote is for a rational water policy. What's yours?